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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/658,835	09/08/2000	Jonathan P. Duvick	1134R	2865

27142 7590 06/18/2002

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EXAMINER

IBRAHIM, MEDINA AHMED

ART UNIT	PAPER NUMBER
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1638

DATE MAILED: 06/18/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/658,835

Applicant(s)

DUVICK ET AL.

Examiner

Medina Ibrahim

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 08 September 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) 1-41 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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Election/Restriction

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-9, 11-14, 33-38 drawn to an isolated polynucleotide encoding an APAO operably linked to a fumonisin esterase polynucleotide, expression vector comprising a promoter and a signal sequence, plant/seed, classified in class 800, subclass 278, for example.
 - II. Claim 10, drawn to an isolated polypeptide, classified in class 530, subclass 350, for example.
 - III. Claims 15-20, 21, 25-27, drawn to a method for degrading fumonisin by external application of APAO alone or in combination with esterase, classified in class 435, subclass 197, for example.
 - IV. Claims 22-24, 28-29, 30-32, drawn to a method for identifying a transformed plant cells expressing APAO encoding polynucleotide alone or in combination with esterase encoding polynucleotide, classified in class 435, subclass 69.7, for example.
 - V. Claims 39-41, drawn to a method of predicting possible mutagenesis in APAO by using automated modeling program, classified in class 435, subclass 19, for example.

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For each of inventions I-IV above, restriction to one of the following is also required under 35 USC 121. Therefore, election is required of one of inventions I-IV, one of inventions (A)-(M), and one of inventions (N)-(O).

- (A). SEQ ID No: 5 or a polynucleotide encoding SEQ ID No: 6
- (B). SEQ ID No: 10 or a polynucleotide encoding SEQ ID No: 11
- (C). SEQ ID No: 22 or a polynucleotide encoding SEQ ID No: 23
- (D). SEQ ID No: 32 or a polynucleotide encoding SEQ ID No: 33
- (E). SEQ ID No: 35 or a polynucleotide encoding SEQ ID No: 36
- (F). SEQ ID No: 37 or a polynucleotide encoding SEQ ID No: 38
- (G). SEQ ID No: 39 or a polynucleotide encoding SEQ ID No: 40
- (H). SEQ ID No: 41 or a polynucleotide encoding SEQ ID No: 42
- (I). SEQ ID No: 43 or a polynucleotide encoding SEQ ID No: 44
- (J). SEQ ID No: 45 or a polynucleotide encoding SEQ ID No: 46
- (K). SEQ ID No: 48 or a polynucleotide encoding SEQ ID No: 49
- (L). SEQ ID No: 50 or a polynucleotide encoding SEQ ID No: 51
- (M). SEQ ID No: 52 or a polynucleotide encoding SEQ ID No: 53
- (N). SEQ ID No: 24
- (O). SEQ ID NO:26

The inventions are distinct, each from the other because of the following reasons:

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Inventions (A)-(M) or (N)-(O) are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions, represent structurally different polynucleotides encoding structurally different polypeptides. Therefore, where structural identity is required, such as for hybridization or expression, the different sequences have different effects.

Inventions I and II are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case, the different inventions are directed to divergent molecules which have different functions and have different effects.

Inventions II and III are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case, the product of Group II can be used in a process other than that of Group III, which is an immunoassay process.

Inventions I and IV are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product

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as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case, the isolated polynucleotides of Group I can be used in a process other than that of Group IV, which is hybridization assays.

Inventions III-V are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case, the different inventions use different products, have different modes of operation and different effects.

The invention of Group V is patentably distinct from any of the other groups because it requires automation tools and mutagenesis which are not required by any of the other groups.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, and the literature and sequence search required for each of the Groups are not required for another of the Groups, restriction for examination purposes as indicated is proper.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

2. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any

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amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(I).

Papers relating to this application may be submitted to Technology Sector 1 by facsimile transmission. Papers should be faxed to Crystal Mall 1, Art Unit 1638, using fax number (703) 308-4242. All Technology Sector 1 fax machines are available to receive transmissions 24 hrs/day, 7 days/wk. Please note that the faxing of such papers must conform with the Notice published in the Official Gazette, 1096 OG 30, (November 15, 1989).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Medina a. Ibrahim whose telephone number is (703) 306-5822. The Examiner can normally be reached Monday -Tuesday from 8:00AM to 6:00PM and Wednesday-Thursday from 9:00AM to 3:00 PM .

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Amy Nelson, can be reached at (703) 306-3218.

Any inquiry of a general nature or relating to the status of this application should be directed to the receptionist whose telephone number is (703) 308-0196.

June 11, 2002
mai

ELIZABETH F. McELWAIN
PRIMARY EXAMINER
GROUP 1600

